Metal Fabricator – Competency Changes
Current Program Outline Competencies found in Harmonized Level 3

This document is to show the **30 additional hours** from current level 3 to harmonized level 3

Green = Added	Red = Removed/Moved/Combined	180 hours (Increased by 30 hours)

C	**Solve Trade Math Problems**
C12	Solve simple problems using trigonometry
C13	**Solve complex problems using trigonometry (CL 4 → HL 3)**
C14	**Solve problems using segmental functions (CL 4 → HL 3)**
E	**Use Shop Equipment**
E2	**Use the hydraulic brake press (CL 2 → HL 2 & 3)**
E8	**Use the power shape rollers (power angle rolls) (CL 2 → HL 2 & 3)**
E9	**Use the CNC shape cutting machine (CL 3 → HL 2 & 3)**
E10	**Use a CNC brake press (CL 4 → HL 2 & 3)**
E11	**Describe CNC punching equipment (CL 4 → HL 3)**
E12	**Develop and use programs for CNC shape cutting equipment (CL 4 → HL 2 & 3)**
G	**Read Drawings**
G5	Interpret standard weld symbols
G11	Interpret specialized multi-view shop drawings
G12	Interpret complex structural, erection and detail drawings
G13	**Describe electronic detailing (CL3 → HL2)**
G14	**Interpret computer generated shop drawings (CL 4 → HL 2 & 3)**
G15	**Interpret specialized structural, erection and detail drawings (CL 4 → HL 2 & 3)**
H	**Use Material Handling Equipment**
H1	**Use safe rigging practices (CL 1 → HL 1 & 3)**
H2	**Use material handling equipment and storage practices (CL 1 → HL 1 & 3)**
H5	**Describe safe work practices related to mobile equipment (CL 1 → HL 1 & 3)**
I	**Use Structural Layout Techniques**
I4	**Describe standard allowances, required accuracy and shop tolerances (CL 2 → HL 2 & 3)**
I8	Layout complex templates from a complex structural shop drawing
I9	Describe the process operation for various structural projects

J	**Develop Plate and Structural Patterns**
J5	**Develop shop layout and processing for plate and structural sections (CL 2 → HL 2 & 3)**
J7	Develop various patterns using the triangulation method
J8	**Develop specialized patterns using the triangulation method (CL 4 → HL 3)**
K	**Use Surface Preparation and Finishing Methods**
K2	**Describe the types of paints used in industry (CL 1 → HL 3)**
K3	**Identify the common methods of paint application (CL 1 → HL 3)**
L	**Fabricate Plate and Structural Patterns**
L4	**Describe modern alignment methods (CL 2 → HL 2 & 3)**
L10	**Layout complex templates from a machine detail drawing (CL 2 → HL 2 & 3)**
L11	**Fabricate a reduced tank with fittings (CL 3 → HL 2)**
L12	Fabricate a square to round transition
L13	Plan, cost and fabricate a structural frame
L14	**Plan, cost and fabricate an eccentric hopper (CL 3 → HL 2)**
L17	**Fabricate a reduced spiral staircase (CL 4 → HL 2 & 3)**
O	**On-site Installation**
O3	**Determine required equipment (CL 4 → HL 1 & 3)**
O4	**Determine required consumables (CL 4 → HL 2 & 3)**
O6	**Describe installation of components (CL 4 → HL 2 & 3)**

LEGEND
CL - Current Level
HL = Harmonized Level